Copy of Newly Added Claims

55. (New) A method for determining whether a gene contributes to Attention Deficit Hyperactivity Disorder (ADHD), comprising:

(a) identifying a group of subjects with ADHD;

(b) selecting a group of candidate genes;

(c) identifying a polymorphism associated with each candidate gene;

(d) creating a scale corresponding to severity of ADHD in each subject;

(e) assigning a gene score to each candidate gene according to relative effect of the subject's candidate gene genotype to phenotype;

(f) determining additive variance (r^2) of said candidate genes using multivariate regression analysis and backward elimination of nonsignificant candidate genes; and

(g) calculating statistical significance of each candidate gene, wherein statistical significance indicates that said gene contributes to ADHD.

56. (New) The method of claim 55, wherein said group of candidate genes comprises norepinephrine genes.

57. (New) The method of claim 55, wherein said group of candidate genes comprises neurotransmitter genes.

58. (New) The method of claim 55, wherein said group of candidate genes comprises opioid genes.

59. (New) The method of claim 55, wherein said group of candidate genes comprises serotonin genes.

60. (New) A method for determining whether a subject is at risk for ADHD, comprising determining whether said subject's genome comprises one or more non-wild type allele selected from the group consisting of *TPH* SNP A 779C, *ADRA2A* SNP promoter region *Msp*I, *ADRA2C* dinucleotide repeat, *PNMT* SNP G-148A, *NET* SNP A1970G *Mnl*I, *COMT* SNP val 158 met G1947A *Nla*III, *CHRNA4*, *ADOA2A* SNP C108T *Rsa*I, *NOS3*, and *NAT1* T1088A, wherein the presence of said non-wild type allele indicates that the subject is at risk for ADHD.

61. (New) The method of claim 60, wherein an increase in the number of said non-wild type alleles indicates an increased risk of ADHD.

62. (New) The method of claim 60, wherein an increase in the number of said non-wild type alleles indicates an increase in the severity of ADHD.

63. (New) A method for treating a subject at risk for ADHD, comprising administering a drug known to regulate a gene determined by the method of claim 55 to contribute to ADHD.

64. (New) A method for determining whether a subject is at risk for ADHD comprising determining if said subject comprises a non-wild type allele of a gene determined by the method of claim 55 to contribute to ADHD.